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COMMITTEES:
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RANKING MEMBER, SMALL BUSINESS

January 12, 2010

The Honorable Julius Genachowski
Chairman
Federal Communications Commission
445 12th Street, SW
Washington, DC 20554

0050

Ref 1000862

Dear Chairman Genachowski:

In order to achieve the full potential wireless will offer in the years ahead, we must have appropriate spectrum policy in place. And without question, that framework must include more tools than just incentive auctions. While I believe you are cognizant of that, I am concerned about the apparent overemphasis on incentive auctions as "an essential tool" to avert a looming spectrum crisis. I agree it is a tool, but it is *one of many* necessary to meet near- and long-term spectrum demand and use.

I raise this issue because there have been recent calls for Congress to simply pass legislation that grants the FCC incentive auction authority and nothing more. My concern is this one-dimensional approach could derail the comprehensive reform required to ensure the future needs of all spectrum users are met—commercial, federal, and military. While spectrum is critical to wireless broadband, it is also essential to other radio-based services such as radar, GPS, telemetry, and numerous others on which Americans rely on a daily basis.

But the fundamental first step in all of this is a spectrum inventory. Having introduced spectrum inventory legislation over a year and a half ago, I was disappointed to learn the FCC has not yet completed this basic exercise¹. While an inventory of both federal and non-federal spectrum would not answer all of our questions, it would provide decision makers at the FCC, NTIA, and Congress a clearer, more detailed, and up-to-date understanding of how spectrum is currently being used and by whom—data essential to sound policy decisions and spectrum management.

What compounds my disappointment about the FCC's apparent inaction regarding an inventory is your response, dated July 14, 2010, to Chairman Rockefeller and Senator Kerry, which indicated you were going to "move as expeditiously as possible" to conduct a comprehensive inventory². While I appreciate the Commission's effort to improve transparency through the launch of its Spectrum Dashboard, it is not a sufficient substitute to conducting an actual inventory.

But in addition to an inventory, as you know, we need a multi-faceted solution to prevent any future spectrum crunch—which includes improved spectrum planning, more robust spectrum management, fostering technical innovation, and even more fiber optic backhaul investment. Addressing receiver standards to improve spectral efficiency and interference immunity and making modifications to

¹ http://news.cnet.com/8301-1035_3-20027902-94.html

² Chairman Genachowski's Response to Senator Rockefeller and Senator Kerry, July 14, 2010,
http://hraunfoss.fcc.gov/edocs_public/attachmatch/DOC-299780A1.pdf

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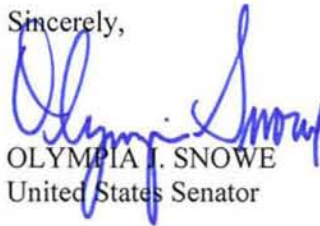
the Spectrum Relocation Fund³ so federal users can have the necessary resources for greater planning and adopting more efficient spectrum technologies are important components of any solution. These have been continuing issues detailed by numerous Government Accountability Office (GAO) reports, one of which concluded, "the current structure and management of spectrum use in the U.S. does not encourage the development and use of some spectrum-efficient technologies⁴."

Such comprehensive effort is not out of reach but we all have to work together to achieve this goal. If we attempt to address the problems that exist through a piecemeal approach, we will fall short of what is truly necessary to overcome the obstacles that impede us from achieving the unbounded innovation the future holds.

As you know, I, along with Senator Kerry, introduced comprehensive spectrum legislation⁵ last Congress to modernize our nation's spectrum planning, management, and coordination activities and fix fundamental deficiencies that exist. It is my intent to reintroduce this legislation or some variation of it this Congress to continue to advance the legislative discourse on spectrum reform.

While I share your enthusiasm about the future of wireless, we cannot get distracted from taking the preliminary steps that lay the appropriate groundwork to achieve our shared goals. This foundation is not homogeneous in nature, relying on only one tool but an aggregation of multiple tools to achieve the singular goal of improving spectrum efficiency and utilization. I look forward to working with my colleagues in Congress to pass legislation that provides both the Commission and NTIA with the proper resources to meet the growing demand for spectrum and to realize the full potential that all wireless services will offer.

Sincerely,



OLYMPIA J. SNOWE
United States Senator

cc: Commissioner Michael J. Copps
Commissioner Robert M. McDowell
Commissioner Mignon Clyburn
Commissioner Meredith Attwell Baker
Assistant Secretary Lawrence E. Strickling, Department of Commerce

³ 47 U.S.C. § 928 - Spectrum Relocation Fund

⁴ Government Accountability Office, *Better Knowledge Needed to Take Advantage of Technologies That May Improve Spectrum Efficiency*, May 2004, pg. 2

⁵ S.3610, *Spectrum Measurement and Policy Reform Act*



OFFICE OF
THE CHAIRMAN

FEDERAL COMMUNICATIONS COMMISSION
WASHINGTON

March 8, 2011

The Honorable Olympia J. Snowe
United States Senate
154 Russell Senate Office Building
Washington, DC 20510-1903

Dear Senator Snowe:

Thank you for your recent letter. I agree on the need to take a comprehensive approach to spectrum reform, and I share your view that we must use all of the tools at our disposal to avert the looming spectrum crisis and promote a vibrant mobile economy. This is why the Commission has undertaken – and has now completed – a baseline spectrum inventory. It is also why we have launched several significant proceedings to achieve greater spectrum efficiency and productivity and proposed that Congress grant the Commission authority to conduct incentive auctions, a market-based approach to national spectrum policy. Taken as a whole, I believe these mechanisms will help our country realize the full potential of wireless and in turn further our global competitiveness, our capacity for innovation and our economic health. I look forward to working with you on these initiatives.

As you indicate, it has been well documented that wireless data traffic is projected to increase exponentially in the coming years – some estimates suggest by more than 40 times between 2009 and 2014, others even higher. As you note, policymakers must develop a multi-faceted solution to keep pace, including improved spectrum planning and management, increased transparency in the use of spectrum, maximizing efficient use of the spectrum, increased deployment of fiber and other backhaul technologies that support wireless networks, reforming the Spectrum Relocation Fund and developing new policy tools such as incentive auctions. Many of the spectrum policy recommendations in your letter are echoed in the National Broadband Plan, which recognized the challenge presented by the imminent spectrum crisis and laid out an ambitious and wide-ranging spectrum agenda.

Since the release of the National Broadband Plan, the Commission has acted swiftly where opportunities for more productive use of spectrum have presented themselves. For example, last May, the Commission removed technical impediments to mobile broadband in the Wireless Communications Service at 2.3 GHz, freeing up 25 MHz of spectrum. Subsequently, in July 2010, we took initial steps to increase use of the Mobile Satellite Service (MSS) bands for terrestrial broadband services, where we anticipate making available another 90 MHz of spectrum. Two months later, in September, the agency freed up spectrum for unlicensed use and innovation known as "Super Wi-fi." In November, we followed up with three proceedings, one of which would revamp our experimental licensing program to encourage investment in research and development and innovative use of spectrum. A second would advance new spectrum access models such as dynamic spectrum access and secondary markets; these new models would

provide incentives for licensees to put their spectrum to more productive use where it makes economic sense. A third proceeding explores initial steps to open television spectrum to new wireless broadband services. Each of these actions is an important element of spectrum reform and is consistent with the various spectrum bills introduced in the previous Congress.

In addition to seizing the clear opportunities to free up spectrum for mobile broadband, the Commission has also conducted a baseline spectrum inventory to better understand the overall spectrum landscape. While conducting a spectrum inventory is inherently an iterative process, it is possible to take a detailed snapshot of how spectrum is currently used, who holds spectrum licenses and where spectrum is available. Thus, in conjunction with the National Telecommunication and Information Administration (NTIA), we have been working diligently over the past year to understand the range of non-Federal and Federal uses of spectrum.

One result of this effort is the Commission's now-completed baseline spectrum inventory. This baseline inventory is one of the most substantial and comprehensive evaluations of spectrum in the Commission's history. Through our systematic process, we have developed two tools – LicenseView¹ and the Spectrum Dashboard² – that reflect our understanding of where the most significant spectrum opportunities lie. The recently-unveiled LicenseView is a comprehensive online portal to information about each spectrum license; it presents data from multiple FCC systems in a searchable, user-friendly manner. The Spectrum Dashboard, released last year, identifies how non-Federal spectrum is currently being used, who holds spectrum licenses and where spectrum is available. The Commission will release an upgraded version of the Spectrum Dashboard later this month – 2.0 – which will provide more granular information about spectrum holdings, including the ability to determine the extent of licensing within counties and on tribal lands and offer additional insights on the secondary market in spectrum licenses through the addition of leasing information.

Our steps to date in creating and maintaining a spectrum inventory have provided the necessary information to determine how best to unleash significant additional spectrum for wireless broadband within the next ten years. They have enabled us to obtain a more complete picture of what spectrum is dedicated to what purposes and where spectrum can be made available for flexible use, including mobile broadband. Most importantly, they have confirmed that Congress should quickly take the important step of authorizing the Commission to conduct voluntary incentive auctions, which would bring market dynamics to bear on the spectrum allocation process, ensuring the most efficient use of the limited spectrum suitable for mobile broadband. The Commission can apply this market-based tool to the few bands that stand out as falling within the frequencies appropriate for mobile use that have sufficient bandwidth to offer clear opportunities for increased spectrum access. The MSS and broadcast television bands meet these criteria, making them the best possible candidates for initial application of voluntary incentive auctions to free up additional spectrum for mobile broadband in the near term.

¹See <http://reboot.fcc.gov/license-view>.

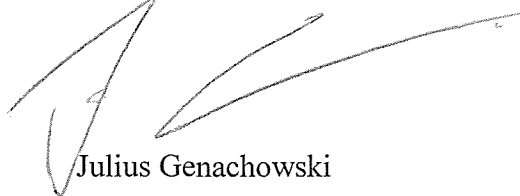
²See <http://reboot.fcc.gov/reform/systems/spectrum-dashboard>.

I also support your suggestion that we explore ways to more exhaustively inventory spectrum, including measuring actual use. While that process, standing alone, is not necessary to identify the primary opportunities for unleashing additional commercial spectrum, it may inform our work on stimulating secondary markets and dynamic spectrum use. These tools complement our work to free up nationwide contiguous blocks of spectrum for mobile broadband, as they seek to ensure the highest and best use of every megahertz of spectrum. The challenge we face, however, is determining whether the incremental value of use measurement is worth the cost – a minimum of tens of millions of dollars – and time it requires – at least several years – to complete.

We are fully committed to continuing our comprehensive approach to addressing our spectrum challenge. I look forward to working with you and your staff to ensure that our Nation leads the world in mobile services and that we find innovative ways to realize the full potential that all wireless services can offer.

Thank you again for your leadership on spectrum policy. I look forward to continuing to work with you on spectrum matters of national importance.

Sincerely,

A handwritten signature in dark ink, consisting of a stylized 'J' followed by a long, sweeping horizontal line that extends to the right.

Julius Genachowski